

Product data sheet, November 2021

Exolon® GP Eco

Solid polycarbonate sheet with reclaimed content



Your benefits:

- guaranteed with a fixed percentage of reclaimed content
- extreme impact strength
- resistance to a wide range of temperatures
- good fire rating

Solid **Exolon® GP Eco** sheets are clear, polished polycarbonate sheets which contain a fixed percentage of own reclaimed content. They offer extreme impact strength that exceeds the physical properties of other products of their class. **Exolon®** sheets resist temperatures of -100 to +120 °C, exhibit high optical clarity and have a good fire rating.

Exolon® GP Eco clear 099 is a clear transparent sheet with high light transmission. It contains at least 40% reclaimed material out of our own production.

Applications:

Typical applications for **Exolon® GP Eco** sheets include machine guards, lighting fixtures, signs, wall and door partitions. The sheets offer protection against involuntary breakage and wilfull destruction. **Exolon® GP Eco** sheets can be thermoformed, cold-curved and machined with ease.

Our commitment: Exolon® GP Eco has the same high quality as our standard sheets regarding optical and mechanical performance. By using selected reclaimed material of excellent quality we are able to maintain the typical properties of the material.

	Test Conditions	Typical values ⁽¹⁾	Unit	Standard
PHYSICAL Density Water absorption saturation Water absorption equilibrium Refractive index	water at 23 °C 23 °C, 50% relative humidity Procedure A	1200 0.30 0.12 1.587	kg/m³ % % –	ISO 1183-1 ISO 62 ISO 62 ISO 489
MECHANICAL Tensile modulus Yield stress Yield strain Nominal strain at break Flexural modulus Flexural strength Charpy impact strength Charpy impact strength Izod impact strength	1 mm/min 50 mm/min 50 mm/min 50 mm/min 50 mm/min 2 mm/min 2 mm/min 2 mm/min 23 °C, unnotched 23 °C, 3 mm, notched 23 °C, 3.2 mm, notched	2350 > 60 6 > 50 2350 90 non-break 80P 70P	MPa MPa % % MPa MPa kJ/m² kJ/m²	ISO 527-1,-2 ISO 527-1,-2 ISO 527-1,-2 ISO 527-1,-2 ISO 527-1,-2 ISO 178 ISO 178 ISO 179-1eU ISO 179-1eA ISO 180-A
THERMAL Vicat softening temperature Thermal conductivity Coefficient of linear thermal expansion Temperature of deflection under load Temperature of deflection under load	50 N, 50°C/h 23°C 23 to 55°C 1.80 Mpa 0.45 Mpa	148 0.20 0.65 128 140	°C W/mK 10 ⁻⁴ /K °C °C	ISO 306 ISO 8302 ISO 11359-1, -2 ISO 75-1, -2 ISO 75-1, -2
ELECTRICAL Electrical strength Volume resistivity Surface resistivity Relative permitivity Relative permitivity Dissipation factor Dissipation factor	1 mm 100 Hz 1 MHz 100 Hz 100 Hz 1 MHz	34 1E14 1E16 3.1 3.0 5	kV/mm Ohm.m Ohm - - 10 ⁻⁴	IEC 60243-1 IEC 60093 IEC 60093 IEC 600250 IEC 60250 IEC 60250 IEC 60250

⁽¹⁾ These values are measured on injection molded samples, and are not intended for specification purposes.





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Ideas, innovative, intelligent, interesting... Exolon Group i-line represents the next generation of quality products. This seal guarantees innovative and intelligent first-class solutions at all times for a multitude of requirements

Light Transmission: Test Method according to DIN 5036.

The stated thicknesses are not all available as standard. Please ask us for more information. The stated values are typical values only.

Light transmission %	1.5	2	3	4	5	6
Exolon® GP Eco clear 099	89	89	88	87	87	86

Available sizes: Exolon® GP Eco sheets are available in thicknesses of 1.5 – 6 mm and in the following sizes:

Sheet Thickness:

 1.5 - 2 mm
 max width 1250 mm

 3 - 6 mm
 max width 2050 mm

Our standard sizes are the dimensions:

2,050 x 1,250 mm and 3,050 x 2,050 mm

Please contact us if you need other dimensions.

Permanent Service Temperature: The permanent service temperature without load is approx. 120 °C.

Fire Rating (*):

Country	Standard	Rating	Thickness	Color
Europe	EN 13501-1	Bs1, d0	1.5 – 3 mm	GP Eco clear 099

(*) Fire certificates could be limited in time and scope, always check if the mentioned certificate is valid for the purchased Polycarbonate sheet type at the date of delivery. Polycarbonate sheets may change their fire behavior due to ageing and weathering. The indicated fire rating was tested on new / unweathered Product in accordance with the indicated fire classification standards.

